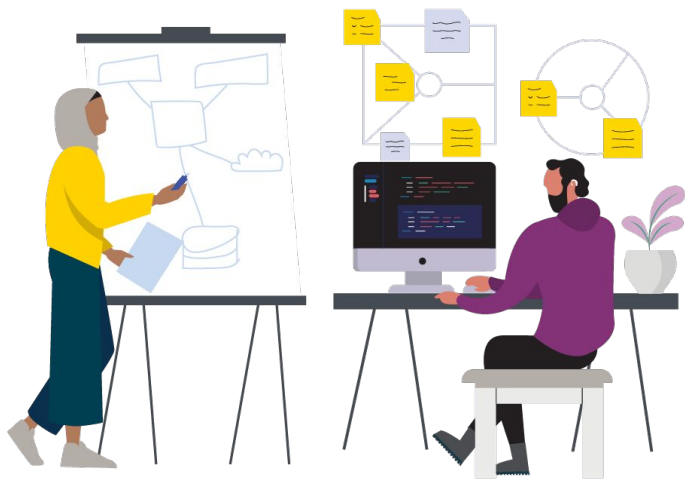


goto;

GOTO AARHUS 2022

#GOTOaar






Automation is hard!

And we are doing it wrong...

Johan Abildskov


@randomsort



~~C~~CULTURE
~~A~~AUTOMATION
~~L~~LEAN
~~M~~MEASURING
~~S~~SHARING

What is this DevOps thing?

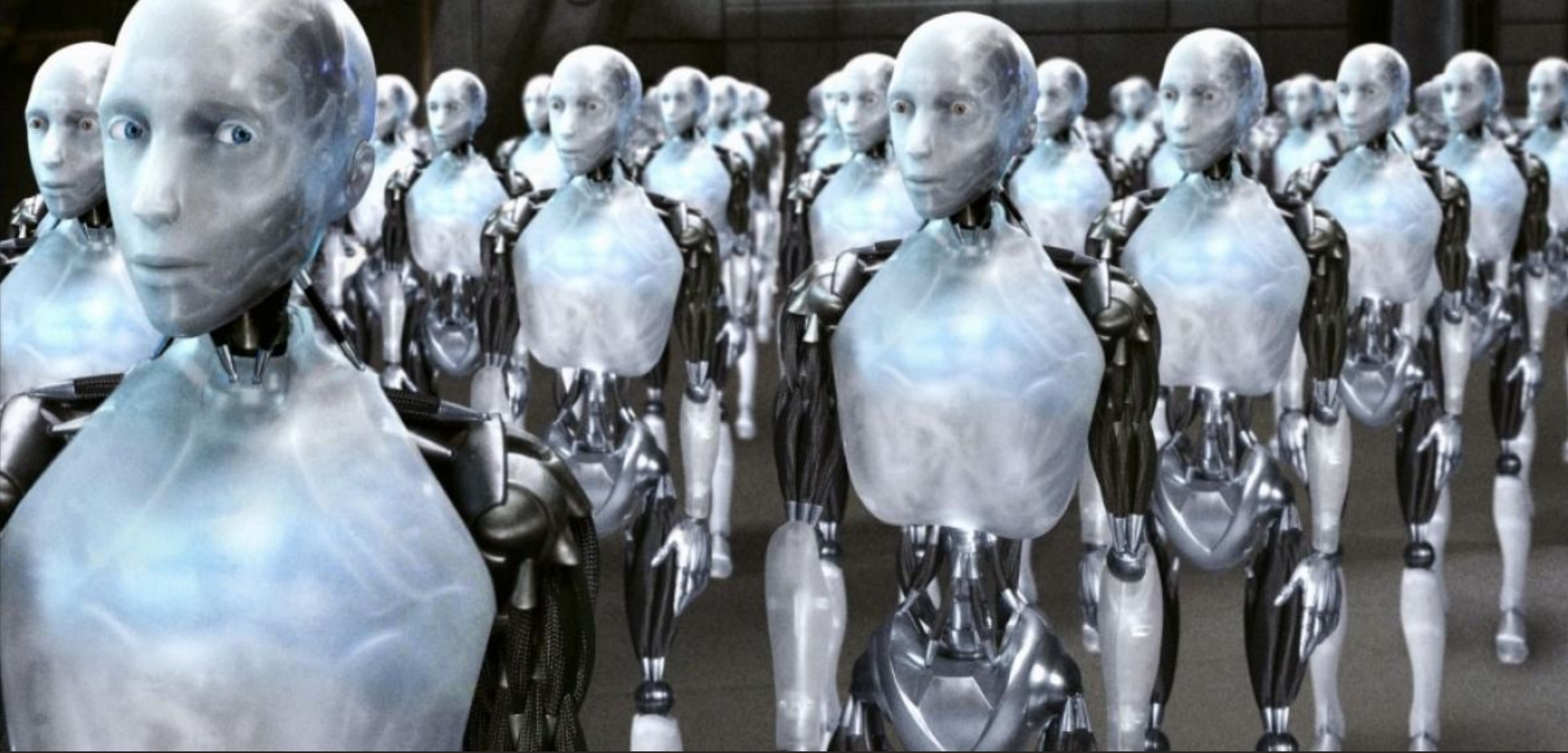
And where should we begin?



~~C~~CULTURE
~~A~~AUTOMATION
~~L~~LEAN
~~M~~MEASURING
~~S~~SHARING

What is this DevOps thing?

And where should we begin?



“We need an army of robots!”



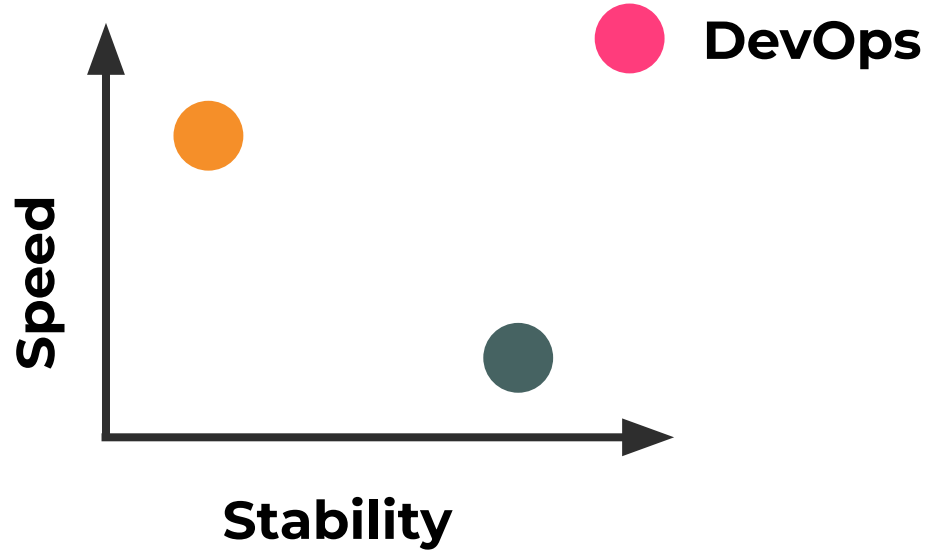
DevOps

Automation



**Our organizations are wrong about
automation**

The DevOps Challenge



WRONG!

Automation is a luxury!



We are constrained by...



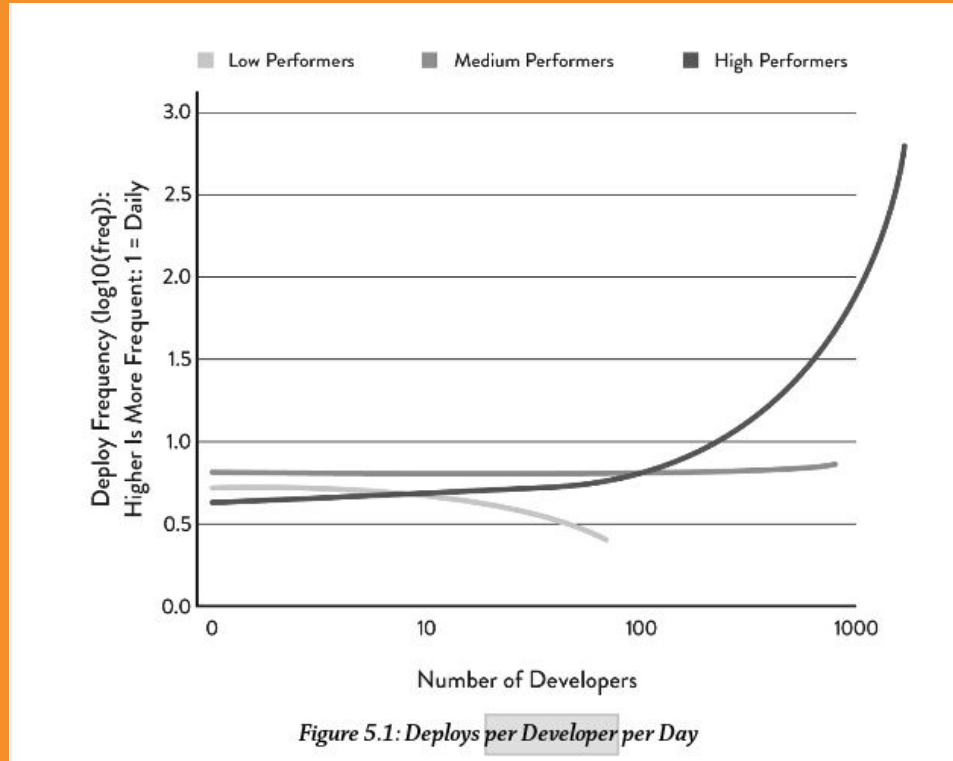
Ideas



Resources

Humans

Prerequisite for Scale



Manual ...

Tests

Deploys

.. Has consequences

Coding on the margins

Minimize the cost of adding one more engineer



Maximize the value of adding one more engineer





It is permission to play

What do we automate?

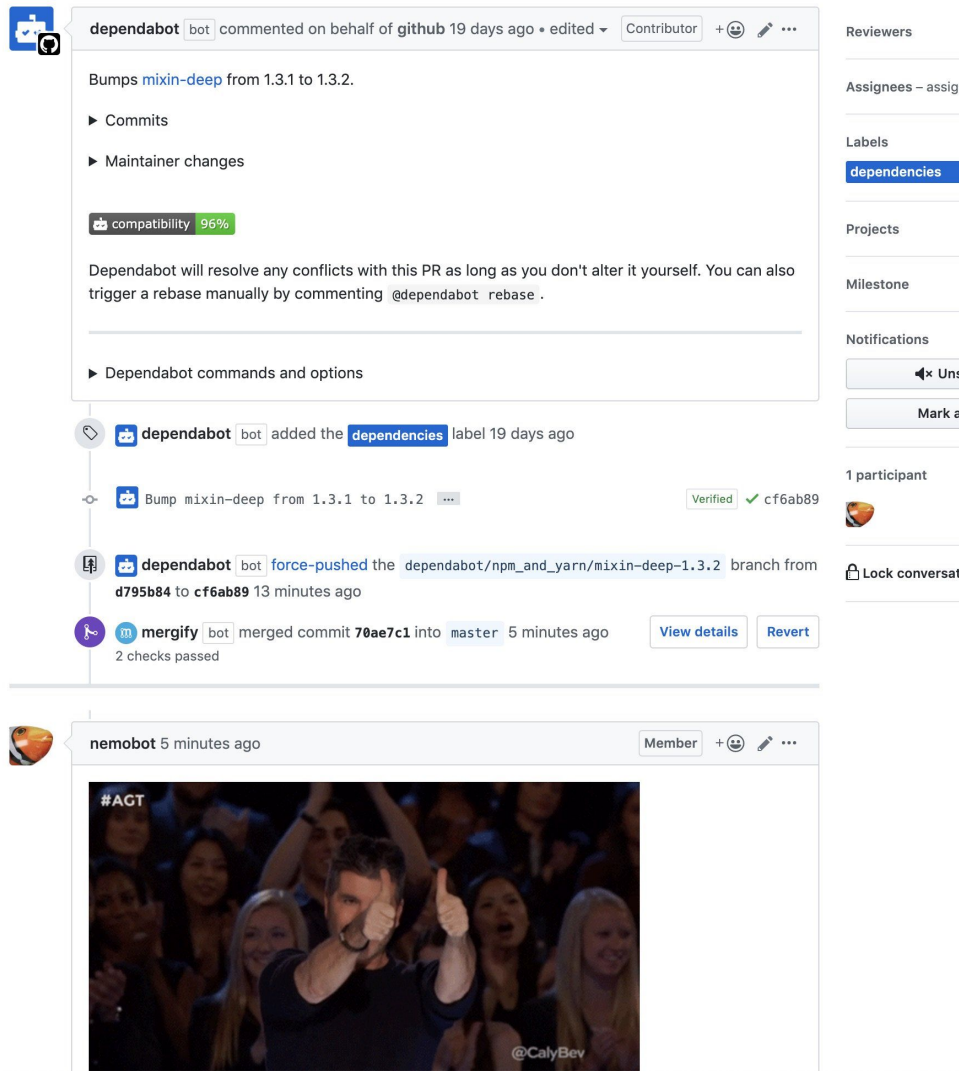


AUTOMATION AND INTEGRATION BY PERFORMANCE PROFILE

	Low	Medium	High	Elite
Automated build	64%	81%	91%	92%
Automated unit tests	57%	66%	84%	87%
Automated acceptance tests	28%	38%	48%	58%
Automated performance tests	18%	23%	18%	28%
Automated security tests	15%	28%	25%	31%
Automated provisioning and deployment to testing environments	39%	54%	68%	72%
Automated deployment to production	17%	38%	60%	69%
Integration with chatbots / Slack	29%	33%	24%	69%
Integration with production monitoring and observability tools	13%	23%	41%	57%
None of the above	9%	14%	5%	4%

It's already here!

<https://github.com/buildo/react-components/pull/1367>



The screenshot displays a GitHub pull request interface. At the top, a comment from **dependabot** (bot) states: "commented on behalf of github 19 days ago • edited". Below this, it says "Bumps `mixin-deep` from 1.3.1 to 1.3.2." and lists "Commits" and "Maintainer changes". A green badge indicates "compatibility 96%". A message follows: "Dependabot will resolve any conflicts with this PR as long as you don't alter it yourself. You can also trigger a rebase manually by commenting `@dependabot rebase`." Below this is a section for "Dependabot commands and options".

Next, a comment from **dependabot** (bot) says: "added the `dependencies` label 19 days ago".

Below that, a commit message is shown: "Bump `mixin-deep` from 1.3.1 to 1.3.2" with a "Verified" green checkmark and commit hash `cf6ab89`.

Then, a comment from **dependabot** (bot) states: "force-pushed the `dependabot/npm_and_yarn/mixin-deep-1.3.2` branch from `d795b84` to `cf6ab89` 13 minutes ago".

Finally, a comment from **mergify** (bot) says: "merged commit `70ae7c1` into `master` 5 minutes ago" with "2 checks passed". Buttons for "View details" and "Revert" are visible.

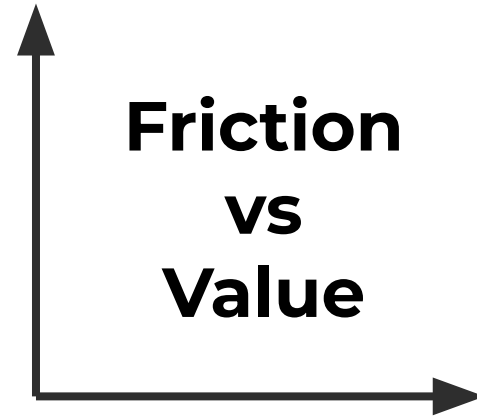
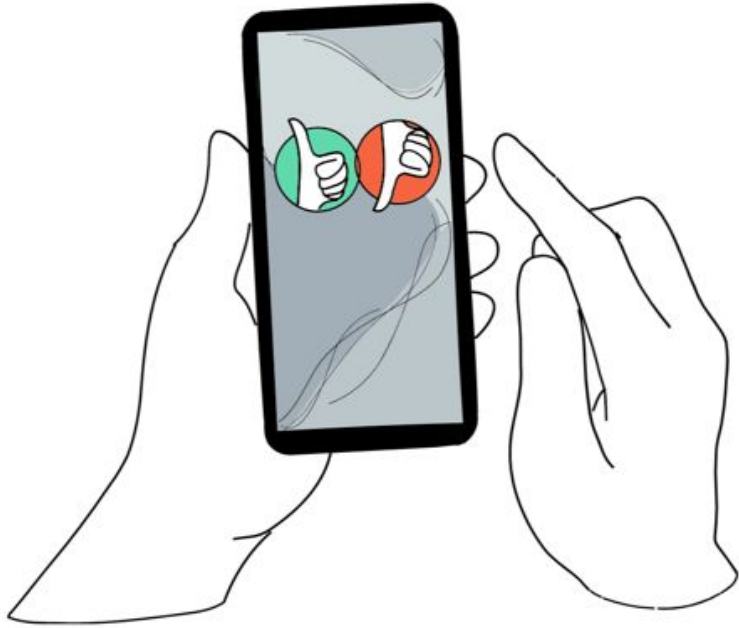
At the bottom, a comment from **nemobot** (Member) says: "5 minutes ago". Below the comment is a video player showing a crowd of people cheering, with the hashtag `#ACT` in the top left corner and the handle `@CalyBev` in the bottom right corner.

On the right side of the interface, there are sections for "Reviewers", "Assignees", "Labels" (with `dependencies` selected), "Projects", "Milestone", "Notifications", and "1 participant".

But the customer doesn't want automation!



The customer do not want my release



1. **Limited software skills** in their senior leadership
2. **Ambidexterity**: the capability to deliver on today's challenges while also preparing for the future needs of the company
3. Leaders believe that **digitalization is an R&D problem**
4. Justify their lack of initiative by referring to the **lack of desire for change from their most valuable customers**

Why Digitalization Will Kill Your Company Too

Published on May 20, 2018



Jan Bosch | [✓ Following](#)
Director Software Center, Professor of Software Engineering,
Chalmers University of Technology, Sweden
[69 articles](#)

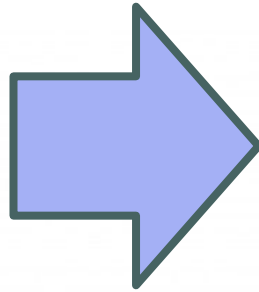
424 38 110

A pink, multi-pointed starburst graphic with a jagged, sunburst-like shape. It is positioned in the upper left quadrant of the image, partially overlapping the main text.

WRONG!

Automation is complex

An Obvious Upgrade



But our task really is ..





**Industry and technology
stack doesn't matter.
Architecture does.**

Nicole Forsgren, Ph.d





**Software
Architecture
is not based
on blueprints!**

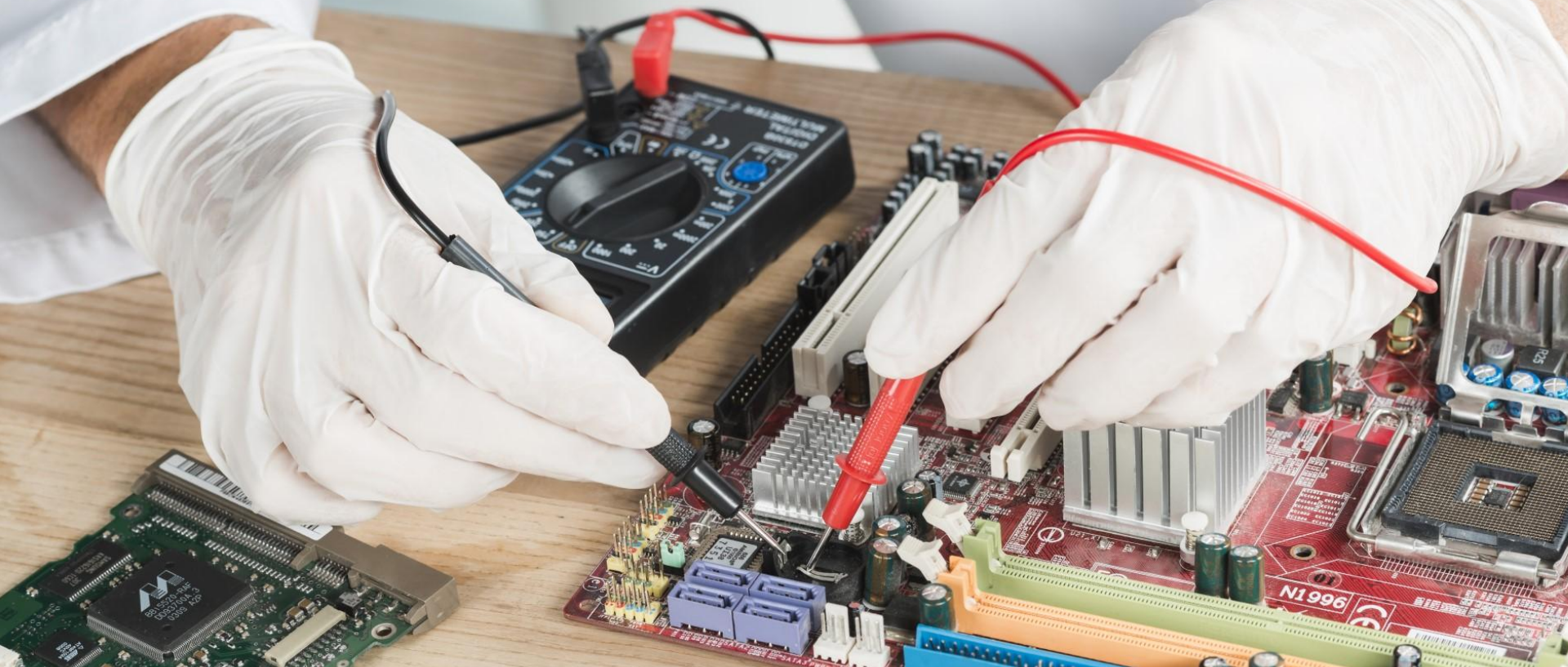


For each desired change, make the change easy (warning, this may be hard), then make the easy change

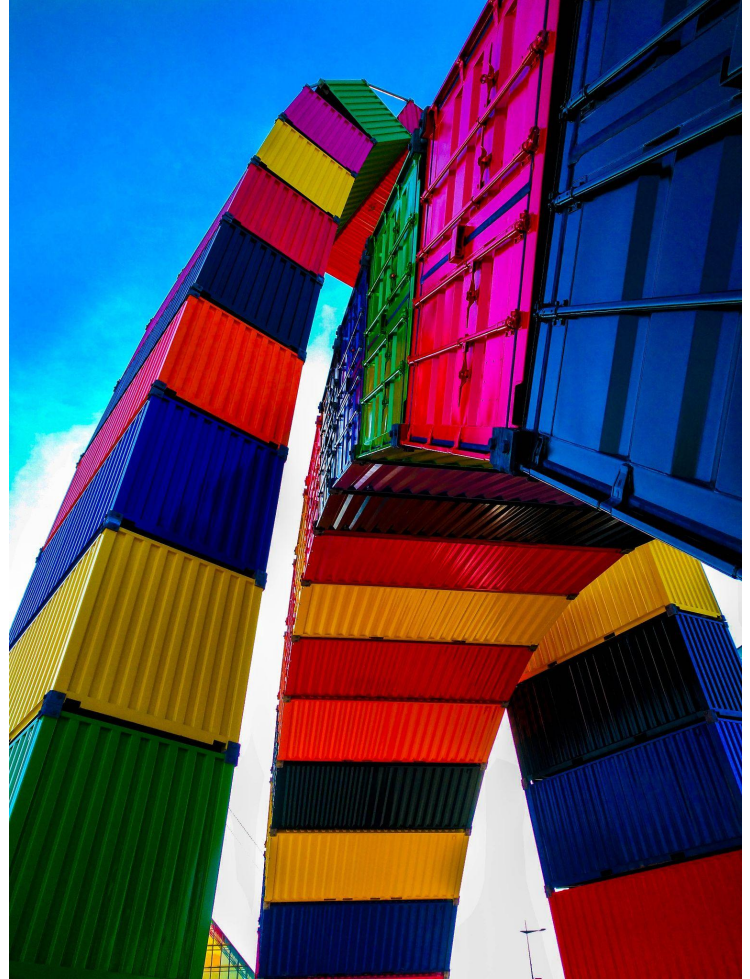
- Kent Beck



Testability



Deployability





Automating simple things is simple. Automating complex things might be impossible*.

- Me

* While retaining sanity

**We, the
engineers, are
wrong about
automation**



Automation is Software

So we should treat it as such



I have a script for that!

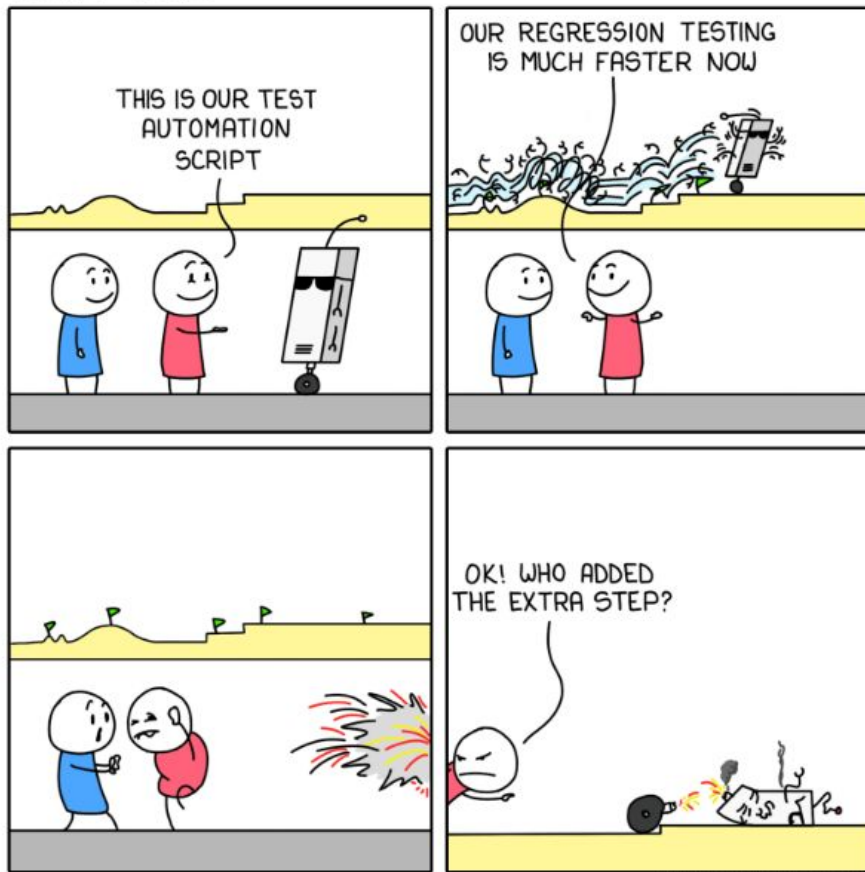
- *All of us*



Version control matters!



BRITTLE



MONKEYUSER.COM

**Testing still
matters**



**Documentation
still matters**

AUTOMATE





**What is the total cost of ownership
of our tools?**

N.I.H Syndrome

Not invented here





Some Useful practices

The fundamentals

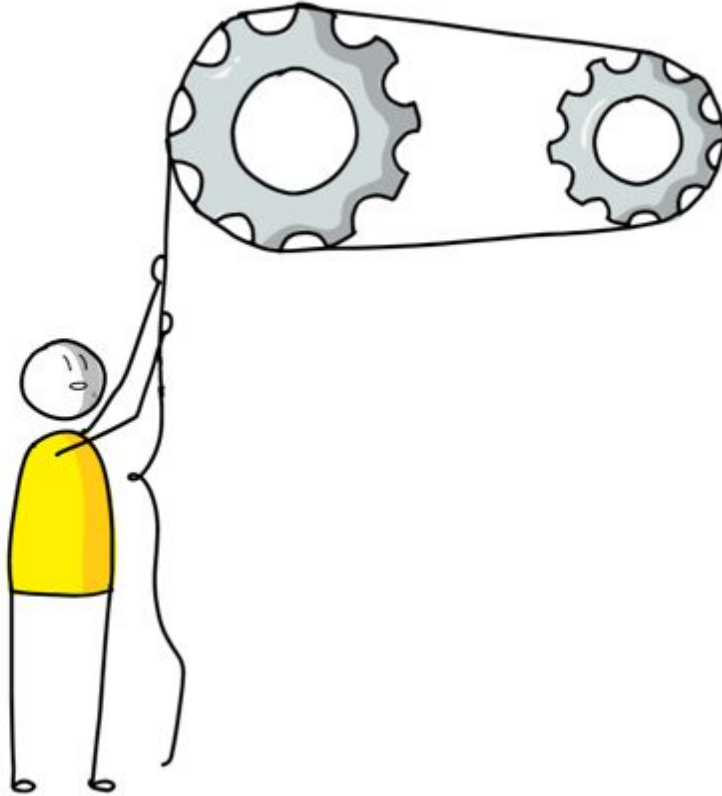
**Version
Controlled**

Tested

Running

Documented

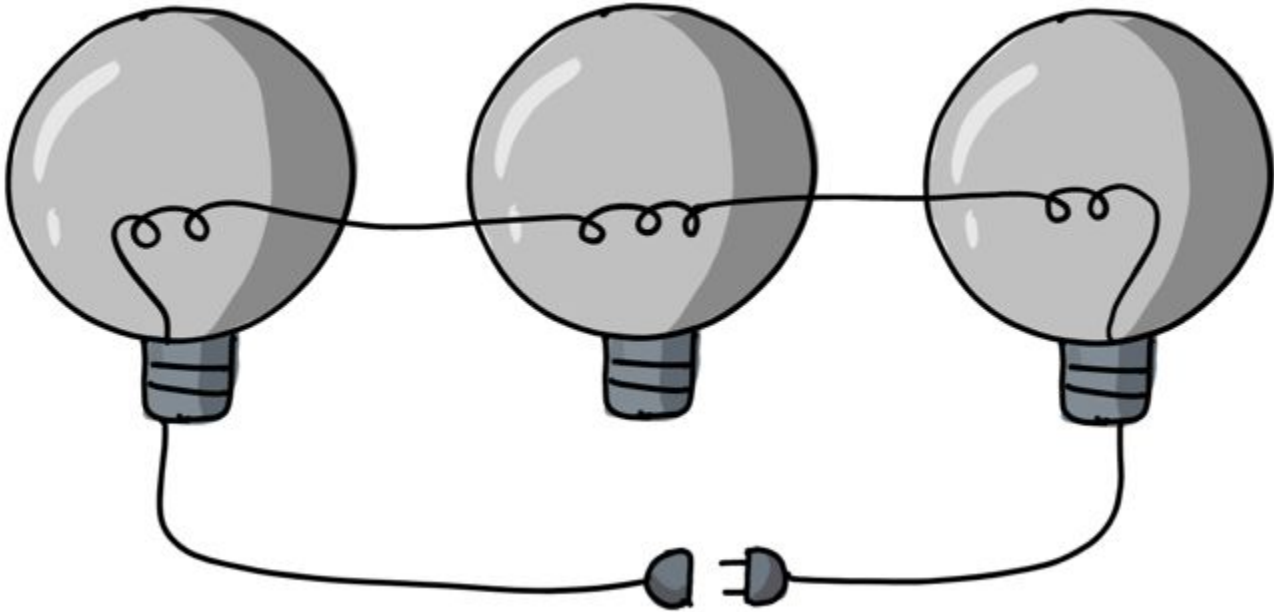
Monitor Progress



Have circuit breakers



Alert on active circuit breaker



 **Alert on stale circuitbreaker override** 



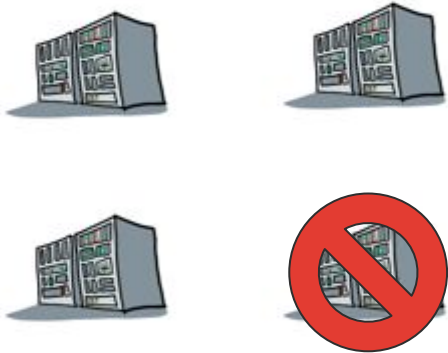


**With great power
Comes great options
For shooting your
Foot**

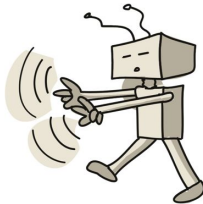
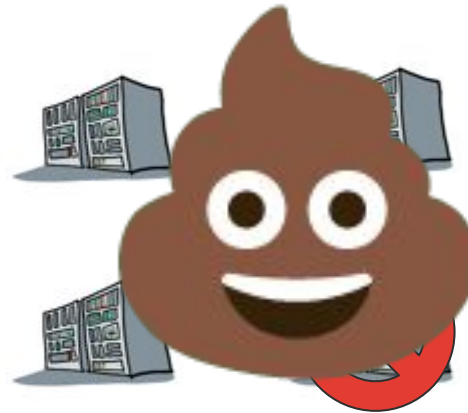


Be idempotent

There should be 3 servers



Remove a server



Don't act on lack of data

There should be 0 servers



I don't know of
any servers, so ..



**We do automation
initiatives wrong!**

Our Strategy Sucks



Master Plan

- Automate
- Profit

Driven By Cost Down



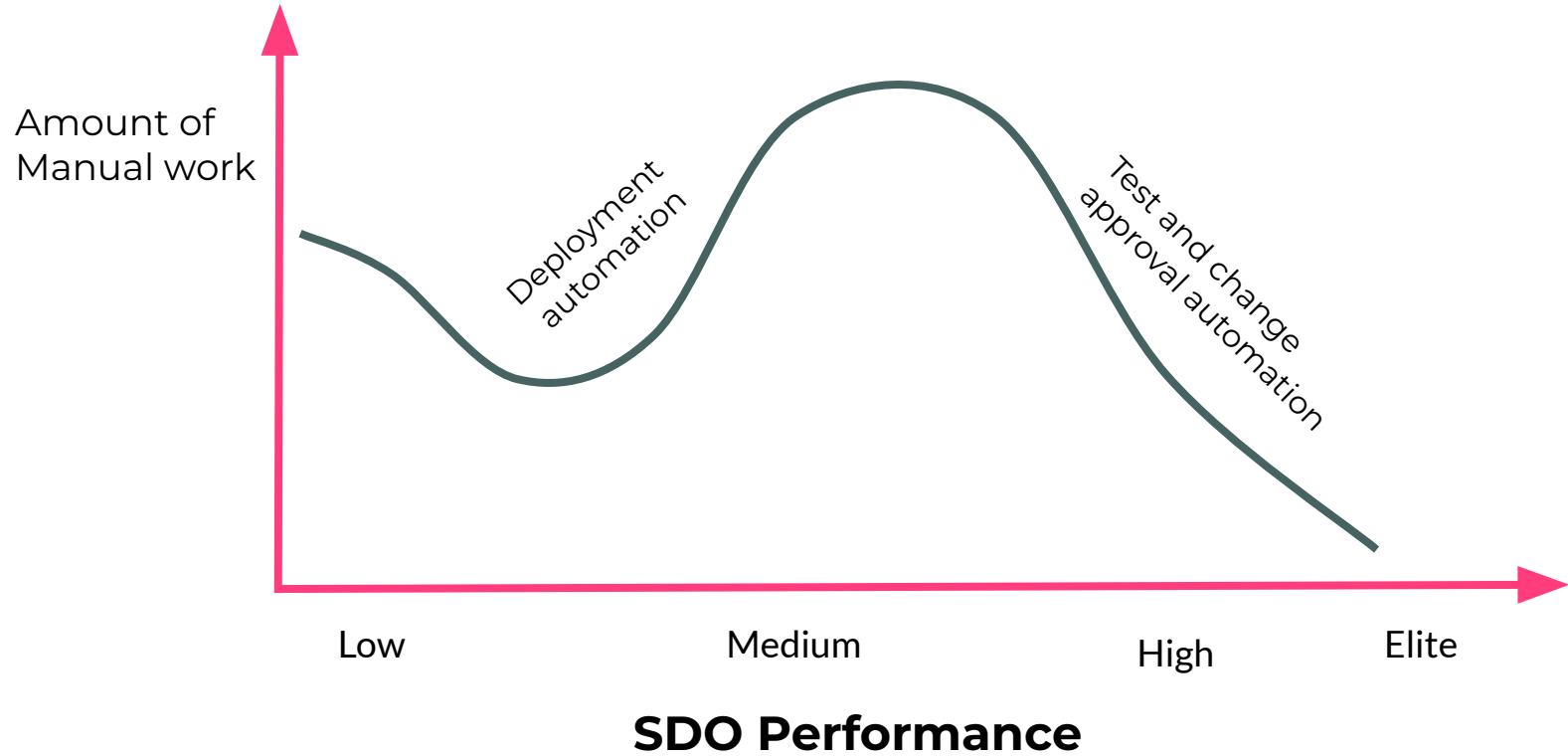
Jevons Paradox

Increased Efficiency



Reduced consumption

Manual work vs Automation



**There is
no silver
bullet**





**There is nothing so useless as
doing efficiently that which
should not be done at all.**

- Peter Drucker



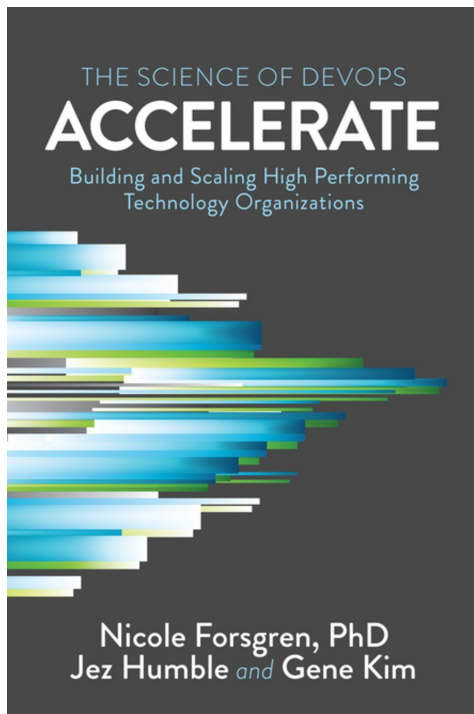
- Automation is software
- Automation is more than cost-down
- Make automatability a first class citizen

Key Takeaways

Johan Abildskov

@randomsort

Sources



DON'T FORGET TO **RATE THE SESSIONS**

#GOTOaar

Rate a minimum of **5 sessions** and
claim your **reward** at the
Registration Desk at the Trifork Hall